

Green Power and Renewable Energy Policy in Japan

-Its co-evolution and conflict

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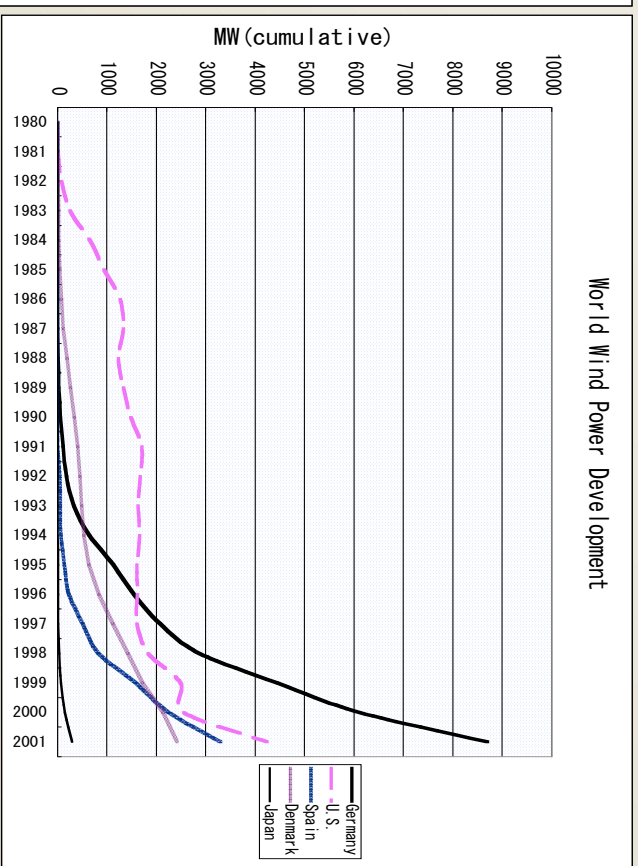
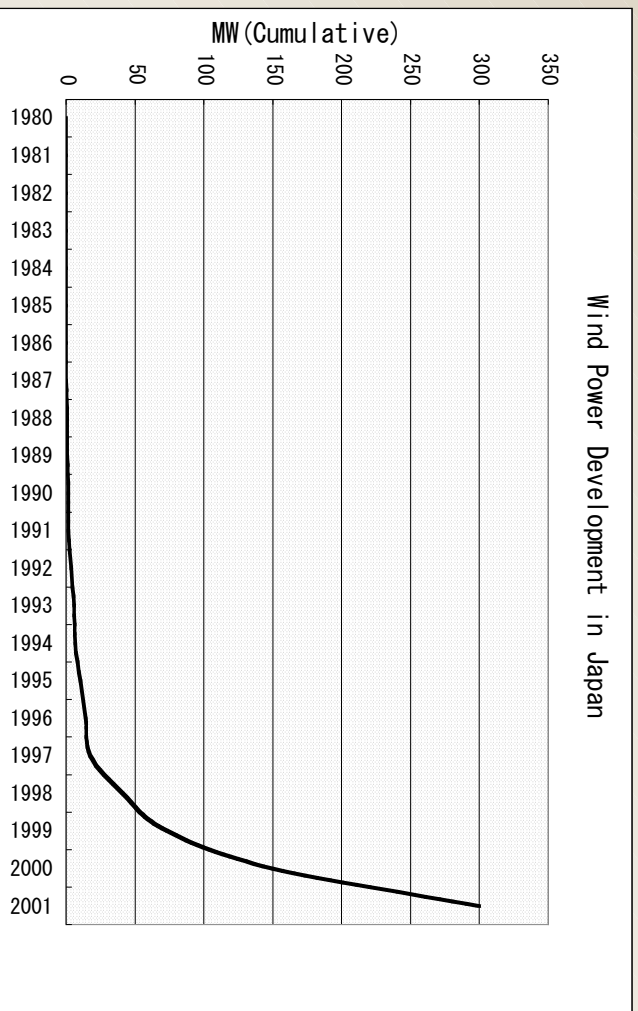
September 30, 2002

7th National Green Power Conference, Washington D.C.



Renewable come to age ... even in Japan

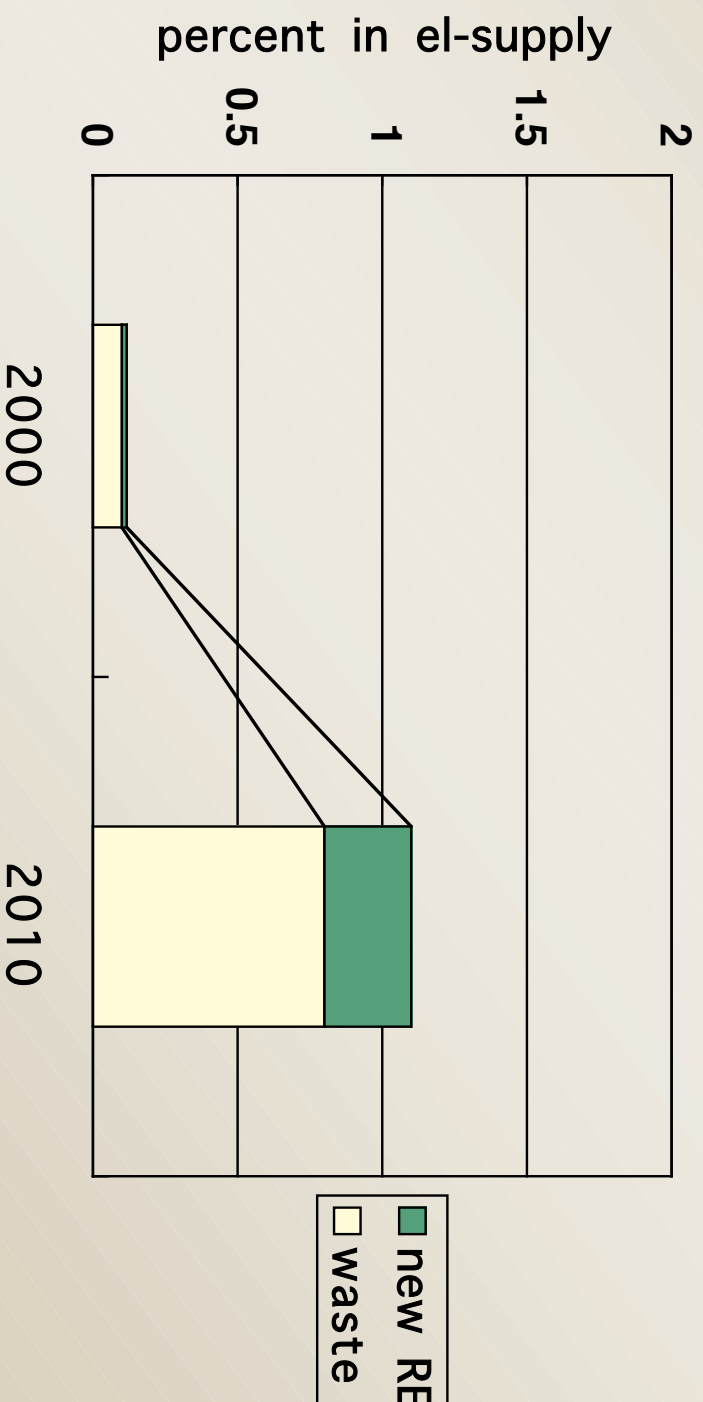
Wind rush





Renewable in Japan's energy policy

- Increasing interest, while still marginal





Brief history of green power and RE policy in Japan

| Policy area | Green Power | Other topics |
|---|---|--|
| 1990 EI's voluntary FIT ('92) | | Rio Summit ('92) |
| 1995 | TEPCO-NGO collaboration ('97) ↓ Hokkaido Green Fund ('99) ↓ Utility Green Power Program ('00~) ↓ Green Certificate ('01~) | Kyoto COP3 ('97) Tokai Accident ('99) |
| 2000 MP Initiative for RE-FIT ('99~) ↓ RPS Act pass ('02) ↓ PRS Act implement ('03~) | | |

* FIT : Feed'in Tariff program, RE: Renewable Energy



Political Initiative for renewable

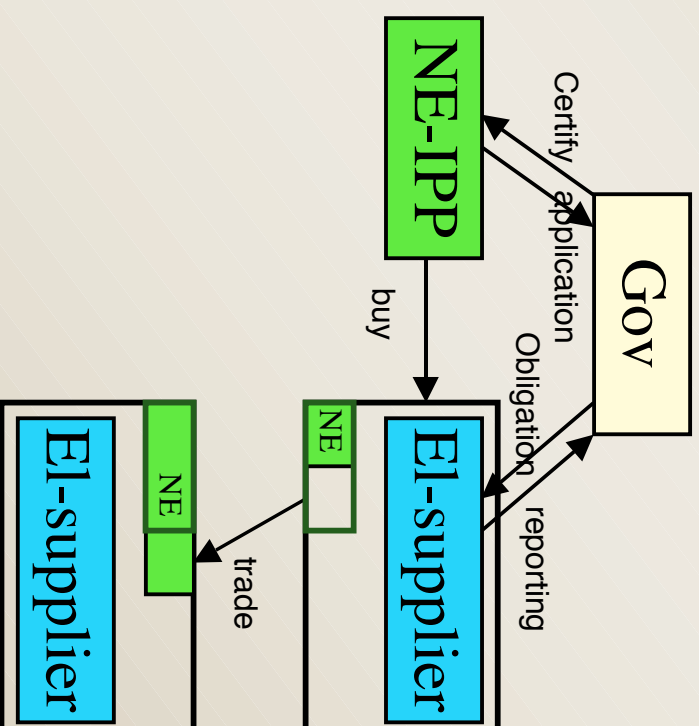
🌐 NGO/Parliament collaboration

- 🏢 May 1999 ~ Green Energy Law Network
- 🏢 Nov 1999 ~ Supra-partisan Coalition for Renewable energy promotion
- 🏢 May 2000 Proposing the draft law based on fixed price system, ... but failed in 2002



RPS as a Japanese context

- New rules, similar RPS
 - ▣ being introduced and applied from April 2003
 - ▣ detail rules are under discussion within the Gov.
- Government would
 - ▣ set the target for every 4 years by 2010
 - ▣ allocates the obligation for each EI supplier
 - ▣ certify “eligible” facility for NE-IPP



* NE : New energy



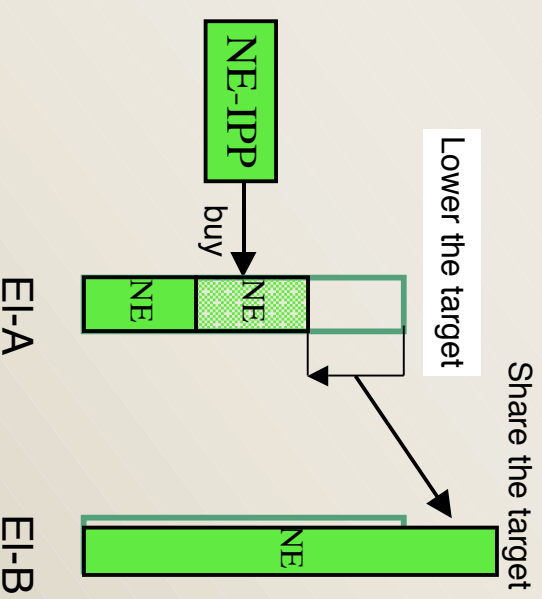
RPS as a Japanese context

❖ EI-suppliers are

- ❑ Obligated to fulfill each target every year through
 - producing by themselves
 - buying from NE-IPP
 - sharing the target with other supplier
- ❑ Penalty if shortage
 - But target are negotiable with the Gov

❖ NE-IPP can

- ❑ Sell its “RPS certificate” to EI suppliers
 - But with or without electricity ?



* NE : New energy



RPS as a Japanese context

📍 Essential issues are left behind

- ▣ Far small target : only 1.1% by 2010
- ▣ No penalty introduced
- ▣ Eligibility issues, especially fossil based waste
- ▣ Contradictions over additionality and CO2 value
- ▣ “Obligation trade” instead of certificate
- ▣ Uncertain market structure, especially for IPP
- ▣ No harmonization with voluntary green power



Green Power Development in Japan

🌐 NGO/Electric Utility collaboration in background

🏢 1997 ~ NGO(PF2001) and TEPCO collaboration for PV promotion

- Spread over other electric utilities

🏢 1999 ~ Hokkaido Green Fund set up

- Japan's First green pricing program
- NGO's initiative, electric utility cooperated
- Utilities' green pricing programs are introduced after

🏢 2000 ~ Development of Green Power

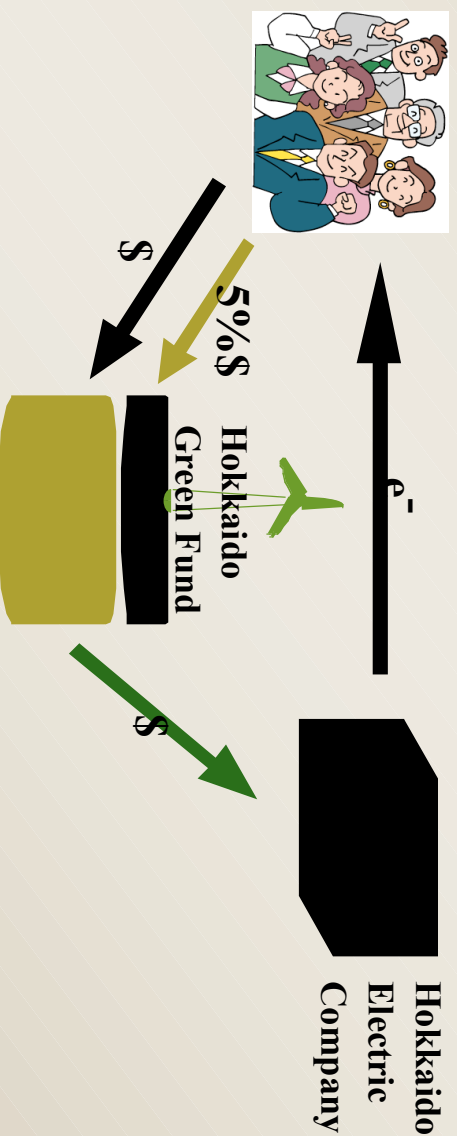
- TEPCO's initiative, NGO & SONY cooperated



Japan's 1st Green Pricing Program

🇯🇵 “Hokkaido Green Fund” (1999/12 ~)

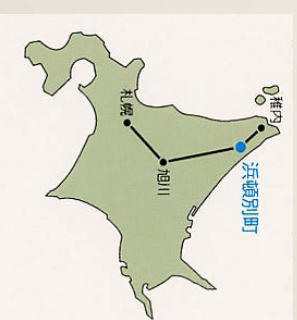
- 🏢 Collaboration between “anti-nuke consumer group” and electric industry





...has developed into wind cooperative

- First cooperative in Hokkaido (Sep. 2001)
 - Evolution from NGO's Green Fund Project
 - Approx. 700 people shared 1MW wind power
- Further development into “Japan-wide wind fund program”





Utilities' Green Pricing Program

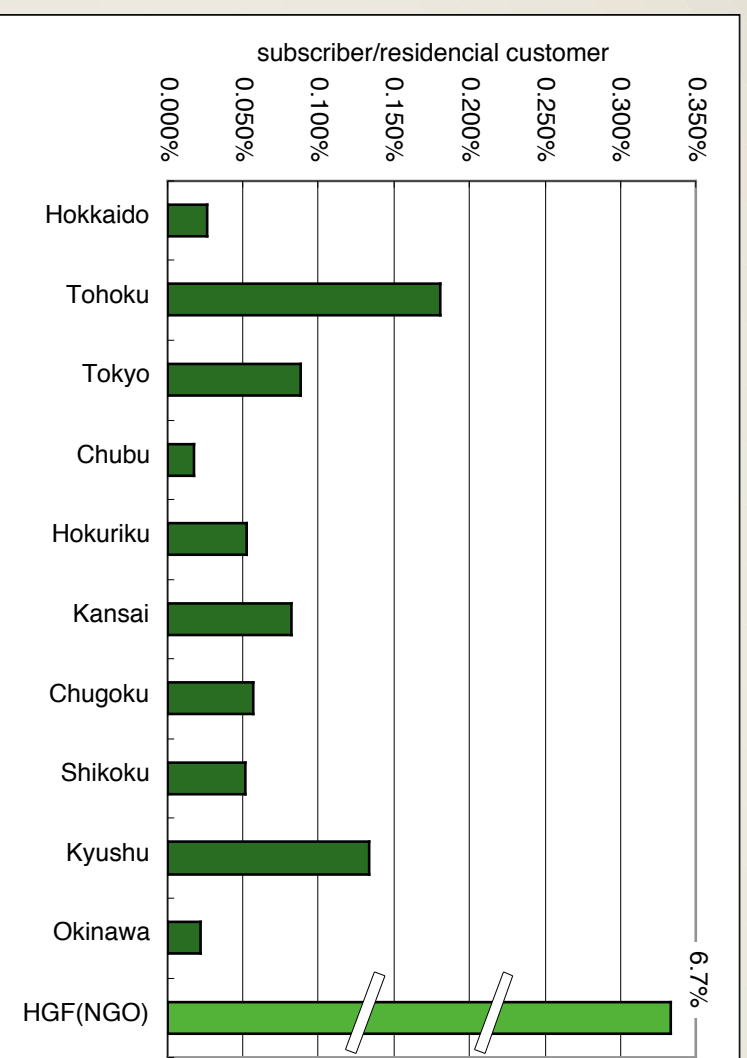
- All 10 electric utilities since 09, 2000
 - “Political story” in background, “collaboration” between bureaucracy (METI) & utilities against new legislation by the Parliament
- Complicated & unclear system
 - Green fund by each utility are used;
 - partly, as a “subsidy” for the utilities in North area
 - partly, as own “subsidy” for purchasing Wind power
 - and finally for community based projects
 - “Committee” under METI’s subsidiary decide without participately manner





Utilities' Green Pricing Program, the result so far

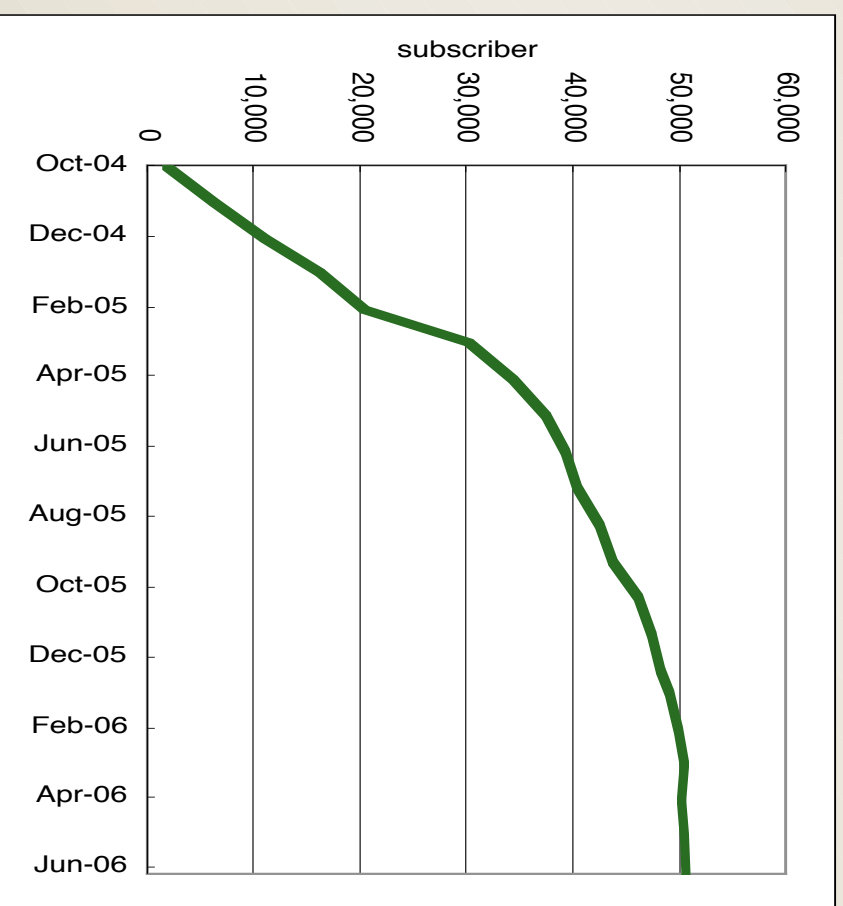
❏ Far low participation






Utilities' Green Pricing Program, *the result so far*

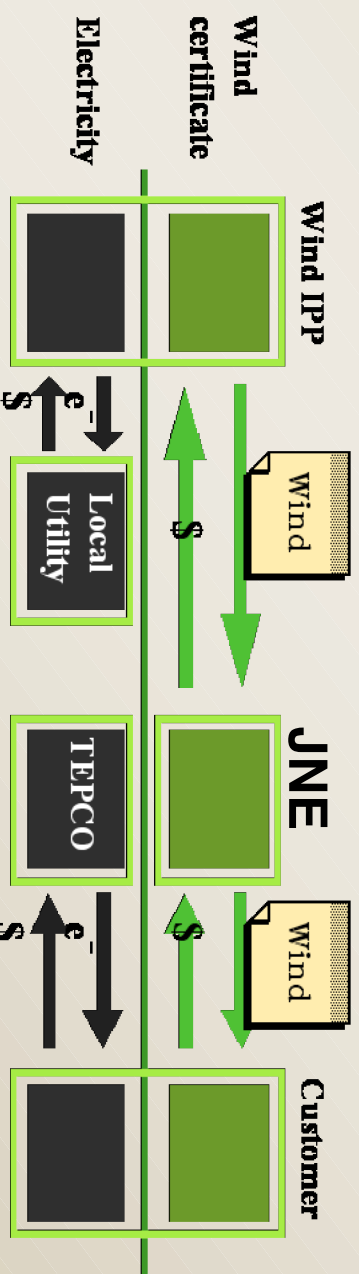
- And almost saturating, even decreasing in some utilities.
- Need to be redesigned;
 - to be community oriented
 - to be more transparent
 - to be more participative





Japan's 1st Green Power Program

- “Japan Natural Energy Co.Ltd.”  日本自然エネルギー株式会社
 - “Tradable Green Certificate” introduced in 2001/10
 - as the result of TEPCO-SONY-NGO collaboration
- so far, the only green “power” program in Japan



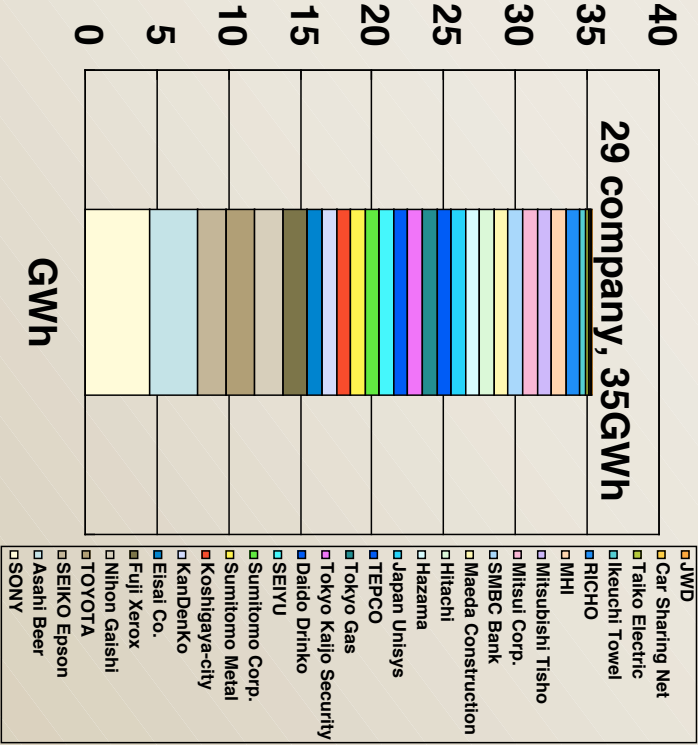


Progress so far by Japan Natural Energy

Contract with:

29 company, 35GWh total

SONY
Asahi Beer
RICOH
Tokyo GAS
TOYOTA
Fuji Xerox
TEPCO
Mitsubishi





Progress so far by Japan Natural Energy

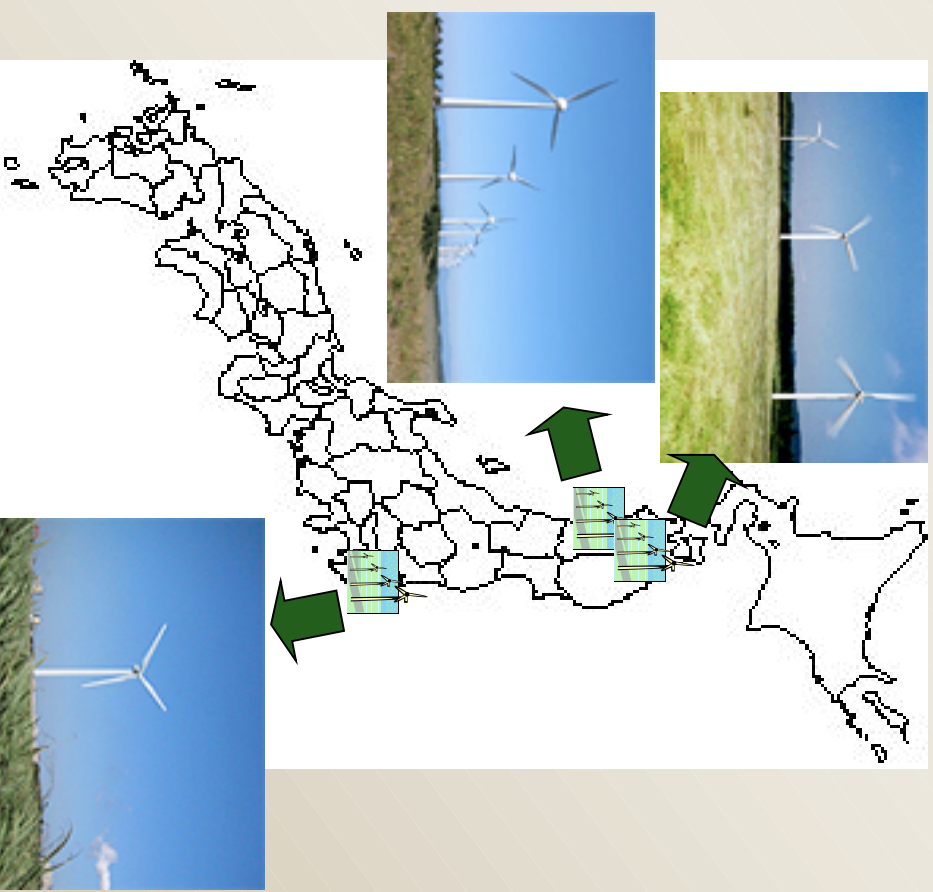
Contracted capacity:

 1.5MW in Chiba (Sep. '01~)

 14.4MW in Noshiro (Nov. '01~)

 7.65MW in Towada (Oct. '02~)

 23.55 MW in total





Japan's 1st Green Power Program

“Japan Natural Energy Co.Ltd.”

Tradable Green Certificate started to promote new business initiative since 2001/10

Green Certificate

“Wind-powered” SONY Tower




Wind towel “Windy Angel”
By IKEUCHI Towel.com





Green Power Certification Council Japan

Co-evolution with Green Power Program

-  Established June 2001
 - To certify Green Certificate and its facility
-  Independent council, consist of academic, Env.NGOs, Research Institute, Local municipalities
-  Rules for the discussion
 - Open and participatory
 - Step by step agreement
 - Flexibility for improvement



<http://eneken.iecej.or.jp/greenpower/>



Green Power Certification Council Japan



Development of Green Power Standard

Criteria for Green Power Certification

- Finished : Wind, Solar PV
- Preparing : Biomass, Small Hydro, Geothermal

Example of Criteria for Green Power Certification(wind)

- Common requirement
 - What is green power
 - renewable, other than fossil nor nuclear
 - No or negligible emissions of CO₂, Sox, NOX and other toxic
 - Additional requirement in general
 - Additionality
 - Environmental Impact Assessment
 - Public acceptance
 - Additional requirement for each power
 - Compliance report for rules and regulation
 - Voluntary EIAs



Fixed price or RPS and/or Green Power

- 📍 Political conflict over policy tools
 - 🏢 Parliament(fixed price) vs Bureaucracy (RPS)
 - 🏢 Voluntary(JNE) vs Mandatory(METI)
- 📍 “WPS” (Waste Portfolio Standard) as a threat for renewable promotion, due to;
 - 🏢 Competitive waste plastic (fossil) power
 - 🏢 Structural superiority under the new Gov’s scheme



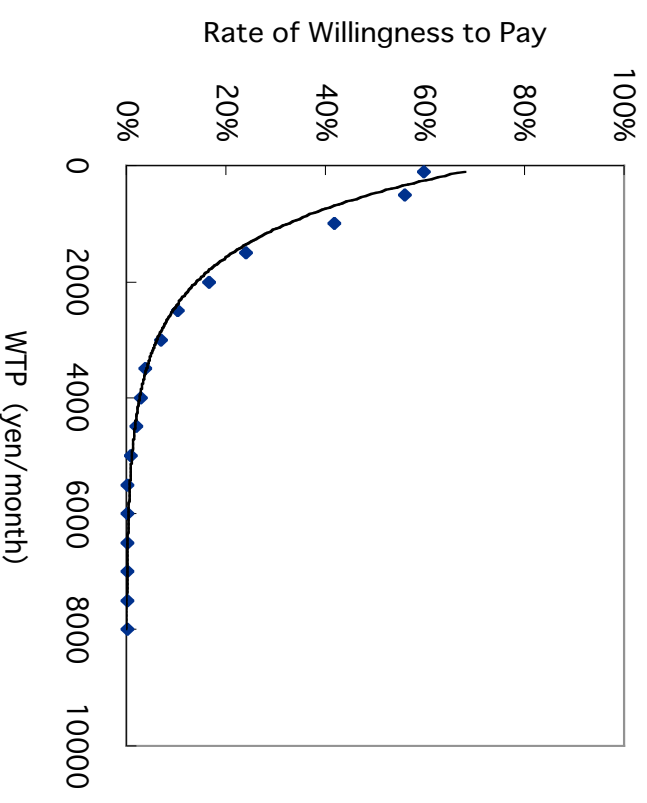
The Future of Green Power & RE policy in Japan

- Good start of green power program
 - With supported by environmental community
- Gov's "RPS" controversy
 - As both system and political conflict
- Various new initiatives and strong public support
 - Increasing local governments' interest for RE policy development, especially in prefectural level
 - High interest for RE among people (ex. WTP)



Strong public support for Green Power

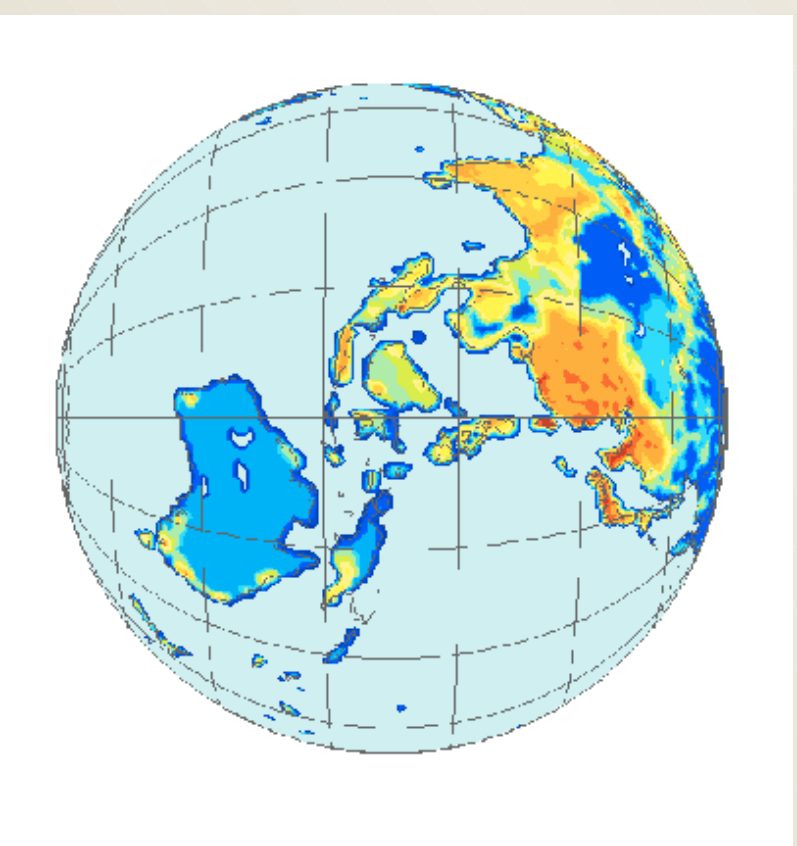
- High potential WTP also in Japan
- 700 people rushed into Hokkaido Wind Cooperative only within 1 month in spite for 500,000 yen/person





Developing Green Power Network

- 2nd European Green Power Marketing Conference in St.Moritz/Switzerland
 - Sept. 5-6, 2002:
- 7th US National Green Power Conference in the Washington D.C.
 - Sep.29 to Oct.2, 2002
- And, 1st Asian-Pacific Green Power Conference in Tokyo
 - March 20-21, 2003:
 - See : www.isep.or.jp





Thank you !

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